

JUL 09 2004

PATENT APPLICATION

ATTORNEY DOCKET NO. 10003867-3

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Xiao-An Zhang, et al.

Confirmation No.: N/A

Application No.: 10/618172

Examiner: N/A

Filing Date: July 10, 2003

Group Art Unit: N/A

Title: Electric-Field Actuated Chromogenic Materials Based on Molecules with a Rotating Middle Segment For Applications in Photonic Switching

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Sir:

This Information Disclosure Statement is submitted:

- (X) under 37 CFR 1.97(b), or  
(Within three months of filing national application; or date of entry of national application; or before mailing date of first office action on the merits; whichever occurs last)
- ( ) under 37 CFR 1.97(c) together with either a:  
( ) Statement under 37 CFR 1.97(e), or  
( ) a \$180.00 fee under 37 CFR 1.17(p), or  
(After the CFR 1.97 (b) time period, but before final action or notice of allowance, whichever occurs first)
- ( ) under 37 CFR 1.97 (d) together with a:  
( ) Statement under 37 CFR 1.97(e)(1) or (2), and  
( ) a \$180.00 fee set forth in 37 CFR 1.17(p).  
(Filed after final action, a notice of allowance, on or before payment of the issue fee)

Please charge to Deposit Account 08-2025 the sum of \$0.00. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25.

(X) Applicant(s) submit herewith Form PTO 1449 - Information Disclosure Statement together with any required copies of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

( ) A concise explanation of the relevance of foreign language patents, foreign language publications and other foreign language information listed on PTO Form 1449, as presently understood by the individuals(s) designated in 37 CFR 1.56 (c) most knowledgeable about the content is given on the attached sheet, or where a foreign language patent is cited in a search report or other action by a foreign patent office in a counterpart foreign application, an English language version of the search report or action which indicates the degree of relevance found by the foreign office is listed on form PTO 1449 and is enclosed herewith.

It is requested that the information disclosed herein be made of record in this application.

"Express Mail" label no. EV419709163-3

Date of Deposit Jul 7, 2004

I hereby certify that this is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 on the date indicated above and is addressed to: Commissioner for Patents, Alexandria, VA 22313-1450.

By

Typed Name: L.D. Raphael

Respectfully submitted,

Xiao-An Zhang, et al.

By

David W. Collins

Attorney/Agent for Applicant(s)

Reg. No. 26857

Date: July 7, 2004

Telephone No.: (520) 399-3203

FORM PTO-1449

LIST OF PATENTS AND PUBLICATIONS FOR  
APPLICANT'S INFORMATION DISCLOSURE  
STATEMENT

(Use several sheets if necessary)

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## REFERENCE DESIGNATION

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	PUBLICATION DATE	NAME	Pages, Columns, Lines Where Relevant Passages or Figures Appear
	1A	2002/075557	20 June 2002	Zhang, Xiao-An et al	Fig 6,7 paragraphs 0042,0070 0126.
	1B	6,031,756	29 Feb 2000	Gimzewski, et al.	Fig 1, 5C, Col 2, Ln 55; col3, Ln 43; Col 8, Ln 61; Col10, Ln 34; Col 11, Ln 1-10, Col 12, Ln 17-32.
	1C				
	1D				
	1E				
	1F				
	1G				
	1H				
	1I				
	1J				
	1K				

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	NAME OF PATENTEE OR APPLICANT	Pages/Columns/Lines Where Relevant Passages/Figures Appear	Check if Translation attached
	1L	EP 0 800 106	8 Oct 1997	Lucent Technologies	Col 4, Ln 18-47; Col 5, Ln 10-55; Col 6, Ln 20; Col7, Ln30; Col 8, Ln 23-50. Figs 1,4-6,8,9	
	1M					
	1N					
	1O					
	1P					

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

	1Q	Kornilovitch, PE. et al: "Bistable Molecular Conductors with a Field-Switchable Dipole Group" Physical Review, B. Condensed Matter, Amer. Institute of Physics. New York, US, Vol. 66, No. 24, December 15, 2002, pp 245413-4, paragraph IV, figure 1.
	1R	Ward, M.D., "Current Developments in Molecular Switches" Chemistry and Industry, Chemical Society. Letchworth, GB, No. 15, August 18, 1997, pp640-645, ISSN: 0009-3068, page 641, figure 1.
	1S	

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	1L					
	1M					
	1N					
	1O					
	1P					

## OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, etc.)

1Q	Sinha, H.K. et al., "Ground and Excited State Dipole Moments of Some Nitroaromatics: Evidence for Extensive Charge Transfer in Twisted Nitrobenzine Systems", Journal of Chemical Physics, New York, NY, US, Vol. 93, No 10; Nov 15, 1990, pp 7085-7093, XP008006682 ISSN: 0021-9606 Figs. 1-5.
1R	Reed M.A., et al "Prospects for Molecular -Scale Devices", Electron Devices Meeting, 1999, IEDM Technical Digest Internat'l, Wash. D.C., USA 5-8 Dec, 1999, Piscataway, Nj USA IEEE, US 5 Dec 1999, pp 227-230, XP010372034, ISBN: 0-7803-5410-9 Whole Document.
1S	

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DATE CONSIDERED